External

Super Multi DVD Rewriter

Owner's Manual

English
Deutsch
Français
Italiano
Español
Português

To enjoy fully all the features and functions of your product, please read this owner's manual carefully and completely.

GSA-5120D

⚠ CAUTION :The laser used in the External Super Multi DVD Rewriter can damage your eyes.
Do not attempt to open the cover.
To reduce the risk of electric shock, do not remove the cover (or back).
There are no user-serviceable parts inside.
Refer servicing to qualified service personnel.

Use of controls or performance of procedures other than those specified herein may result in hazardous radiation exposure.

⚠ WARNING : To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture

English

Industry Canada requirement

This class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

FCC COMPLIANCE STATEMENT

Note : This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an Authorized Service Center for help.

- FCC WARNING
  Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- This External Super Multi DVD Rewriter is for use only with UL listed personal computers that have installation instructions detailing user-installation of card cage accessory.

This product is manufactured to comply with the radio interference requirements of EEC DIRECTIVE 89/336/EEC, 93/68/EEC and 73/23/EEC.

⚠ CAUTION - VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.
AVOID EXPOSURE TO THE BEAM.

⚠ VARNING - OSYNLIG LASERSTRÄLNING NÄR DENNA DEL ÄR ÖPPNAD STRÄLEN ÄR FARLIG.

CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT
CLASE 1	PRODUCTO LÁSER
CLASSE 1	PRODOTTO LASER

WARNING: Only drives bearing the logo Compact Disc ReWritable Ultra Speed can write or erase Ultra Speed CD-RW media.

Ultra Speed CD-RW Media may be recognized by the same Compact Disc ReWritable Ultra Speed logo on the disc label or packaging material.

Attempting to write to Ultra Speed CD-RW media using CD-RW drives NOT bearing the logo Compact Disc ReWritable Ultra Speed may result in data loss.

DVD+R Double Layer media may have compatibility problem with other drives.

Contents

Introduction

Features 2
Package contents 2
System requirements 3
Important precautions 4
Location and function of controls 5

Installation

Hardware Installation 6
Removing the USB converter cable 7

Operation

Loading and ejecting a disc 8
Playing a music CD 9
Playing DVD video and MPEG2 movie video 9

Appendix

Troubleshooting 10
Specifications 11

- Microsoft® and Windows® are trademarks registered in the United States and other countries by the Microsoft Corporation.
- The company names and product names written in this manual are trademarks or registered trademarks of the respective companies.

Introduction

Thank you for purchasing the LG External Super Multi DVD Rewriter.

Features

- Universal Serial Bus (USB) 2.0 and FireWire IEEE 1394 interface for high-speed data transfer.
- Buffer Under Run error protection technology
- Emergency eject support
- Bear media loading with power eject.
- Combination of CD-R/RW, DVD-R/RW, DVD+R/RW, DVD+R DL (Double Layer) and DVD-RAM drive functions into one drive.
- Supports region playback control Phase II.
- 40X max Writing (CD-R), 24X max Writing (CD-RW), 12X max Writing (DVD+R), 8X max Writing (DVD-R), 5X max Writing (DVD-RAM), 4X max Writing (DVD+RW, DVD-RW), 2.4X Writing (DVD+R Double layer), 40X max Reading (CD-ROM, CD-R), 40X max Reading (CD-RW), 16X max Reading (DVD-ROM single), 8X max Reading (DVD-ROM dual), 10X max Reading (DVD+R, DVD-R), 8X max Reading (DVD+RW, DVD-RW, DVD-VIDEO), 5X Reading (DVD-RAM).

Package contents

Item	Quantity
A. External Super Multi DVD Rewriter	1
B. USB 2.0 converter cable	1
C. FireWire IEEE 1394 cable (6 pin to 6 pin)	1
D. FireWire IEEE 1394 cable (6 pin to 4 pin)	1
E. AC Power Adapter (with Power supply cable)	1
F. Software CD	1
G. Quick Guide for Software CD	1
H. Manual	1

Cautions

System meeting the following requirements is needed in order to use USB 2.0 operation with this drive.

- Computer that is equipped with a USB 2.0 – compliant USB connector or PCI adapter card, and on which the USB 2.0 EHCI (Enhanced Host Controller Interface) driver software [1] has been installed.

  [1] The USB 2.0 EHCI driver software is supplied with currently available PCI adapter cards that conform to USB 2.0. Further, Microsoft has released the USB 2.0 EHCI driver software for Windows XP, therefore it is also possible to use this driver software with Windows XP. If you want to know in detail, please contact your USB 2.0 adapter dealer or consult your PC manufacturer, or consult the Microsoft Corporation Web site.
- To achieve maximum Record & Write speed your system may require data to be copied first to the computer's hard drive rather than directly from another source disc or drive.

System requirements

Computer

This unit can be operated in the system environment explained here.

System requirements	CPU	Pentium 4 1.6GHz or Higher with IBM PC or Compatible.
	Memory	128MB of RAM or greater.
Hard disk		10GB or more free space. (The free space needed for writing depends on the quantity of data.)
Interface		USB port or IEEE1394 port
CD-ROM drive		For Software installation
Software Required OS		Windows 2000 Professional/XP(Home Edition/ Professional), Direct X 9.0 or Higher is required.
CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM discs		**CD-R** : LG, Mitsubishi Chemical, Verbatim, Taiyo Yuden, TDK or SKC discs are recommended. **CD-RW** : LG, Ricoh, Mitsubishi Chemical, Verbatim discs are recommended. **DVD-R** : Maxell, Taiyo Yuden, JVC are recommended. **DVD-RW** : JVC, Mitsubishi Chemical, TDK are recommended. **DVD+R** : Taiyo Yuden, JVC, Ricoh are recommended. **DVD+RW** : TDK, FujiFilm are recommended. **DVD-RAM** : Maxell, Panasonic are recommended. **DVD+R DL** : Mitsubishi Chemical is recommended.

* Compatibility problem in write/read function may occur with some DVD+R Double Layer media depending on the media manufacturing quality.

Important precautions

Follow these precautions when handling the drive or discs.

Precautions

Please note that the manufacturer of this equipment does not offer any warranty against data loss due to inappropriate installation, handling, direct or indirect damages. Please note that the manufacturer will bear no responsibility for direct or indirect damages (including lost data)caused by the use of this product or its malfunction.

Please backup(copy) all important data as protection against data loss.

Installation

Avoid placing the drive in a location subject to:

- high humidity
- high temperature
- excessive dust
- mechanical vibration
- direct sunlight

Operation

Don't move the drive suddenly from a cold place to warm one.
Condensation may cause abnormal operation.
Make sure to remove the disc before moving the drive to prevent the possible damage to the disc.
Prevent foreign objects, such as liquids or metal, from entering the drive and in the case a foreign object enters the drive, please consult the dealer where the drive was purchased.
Don't interrupt the electric power while the drive is operating.
While drive is operating, don't move the drive or give a shock to the drive, since it can cause damages to the disc.

AC Adapter

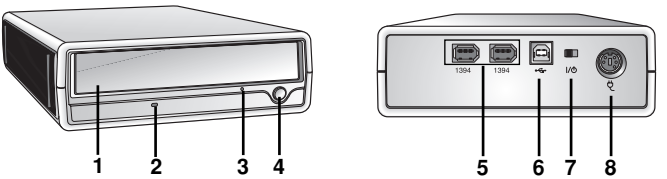
Don't plug in or remove the AC adapter using wet hands.
Don't damage the AC adapter by scratching, modifying, or bending its prongs.
Use only supplied AC adapter.
Don't disassemble the AC adapter.

Operation through a USB hub cannot be guaranteed.

When connecting with USB1.1 interface, picture and sound may be disrupted while watching DVD Video due to lack of data transfer speed. For smoother playback of DVDs, high-speed USB 2.0 should be used.

Location and function of controls

This drive should be used only in its current hardware and software configuration.

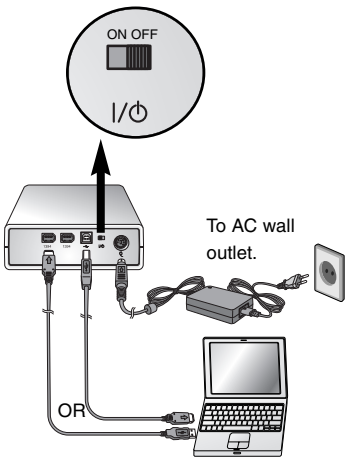


1. **Disc Tray**
2. **Drive activity indicators**
   The LED used to indicate the operation of External Super Multi DVD Rewriter.
   Read:
   The green color is displayed during disc reading session.
   Write:
   The green color is flashed during disc writing sessions. (CD-R/RW, DVD-R/RW)
   The green color is displayed during disc writing session. (DVD-RAM, DVD+R/RW)
3. **Emergency Eject Hole**
4. **Stop/Eject Button**
5. **1394 Connector (6 pin) -**This connector is used to connect to the 1394 FireWire.
6. **USB Connector -** This connector is used to connect to the USB converter cable.
7. **Power Switch -** Use this switch to turn the drive on and off.
8. **Power Connector -** This connector is used to connect to the AC Power adapter cord.

Installation

Hardware Installation

Connecting to computer



NOTES

- Make sure you have a personal computer with an open USB port or IEEE 1394 port before connecting the drive to your computer.
- You cannot use the FireWire [IEEE 1394] and USB interfaces simultaneously.
- Power for all device should be turn off before attaching the cables.

Connect the drive to the computer as shown in figure.

1. Connect the USB converter cable [or IEEE 1394 cable] to the External Super Multi DVD Rewriter.
2. Connect the other end of the USB converter cable [or IEEE 1394 cable] to your computer.
3. Connect the AC adapter plug to the power connector at the rear of the drive.
   Attach the AC adapter to the AC wall outlet.
4. When the computer is ready, confirm that the drive is detected. And then, insert the supplied software CD into the External Super Multi DVD Rewriter and install the software.

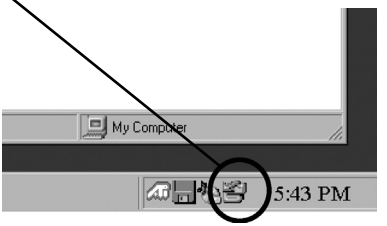
NOTES

- Please do not turn off the drive while the computer is searching for the drive.
  If you turn off the drive, normal operation of the computer will not be possible.
- Please do not connect the AC adapter and USB 2.0 converter cable by any means other than specified above.

Removing the USB converter cable

The drive supports the plug and play(not swap) function of Windows, and can be removed and inserted by performing the following operation.

1. Stop the application software being currently used.
2. Click the icon “ ” of the taskbar located on your screen’s bottom right side.



3. Click “Safely Remove USB Mass Storage Device-Drive[x:]”.
4. Click “Ok” and then remove the USB converter cable.

NOTE

Don’t remove the USB converter cable when the busy indicator on the drive blinks, or during computer startup.

Operation

Loading and ejecting a disc

Remember - AC adapter must be connected.
Make sure the power is turned on.

Loading a disc

1. Push the Eject Button to open the Disc tray.
2. Load a disc. (Label facing up.)
3. Close the Disc tray.

Ejecting a disc

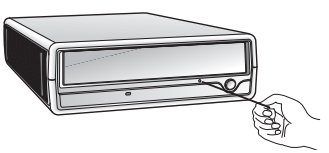
1. Push the Eject Button to open the Disc tray.
2. Removing the disc.
3. Close the Disc tray after removing the disc.

Emergency Eject

This drive has a feature that allows the CD to be ejected manually in case of a drive failure or a power outage.

NOTE: Don't use this feature **except** in an emergency.

1) Turn the power OFF.
2) Poke a fine-tipped object (such as a straightened heavy duty paper clip) into the small hole above the eject button. The front door will pop open and the disk tray will come partway out.
3) Pull the front door to open it all the way, then grip the disc tray between thumb and forefinger and gently pull it straight out.



NOTE: Use this feature for an ermergency purpose only.
Using it excessively will cause malfunction.

* If you cannot get a good grip on the disc tray with your fingers, use a steel binder clip or spring clamp to pull it out.

Playing a music CD

Listening to sound

When connected to a computer, you can play audio CD's through your computer's audio system after setting Digital Audio mode.

Check your Windows or "Windows Media Player" manual for detail.

Playing DVD video and MPEG2 movie video

The drive must be connected to a computer, and basic installation already done.
Install the 'PowerDVD' software to your PC.
Inserting the disc will automatically start installation. Follow the wizard.
After installation, remove the PowerDVD software and put it away for safekeeping.
Inserting a DVD Video disc into the drive and it will play automatically.

NOTES

- **DVD video region code:**
  Each region around the world has a different region number on the DVD video movies being sold in a region.
  The region code can be changed to other regions up to 5 times by using the software decoder (PowerDVD).
  If you change the region code 5 times, the drive will lock onto the last (5th change) region code, and cannot change the drive to another region code.
  This limitation is a requirement as licensees of DVD drive technology.
- **When connecting with USB1.1 interface, due to it's slow transfer time, picture and sound may be disrupted when trying to view a DVD movie.**

Appendix

Troubleshooting

If you are experiencing problems with the drive, verify the following items.
Since the problem may be caused by a device other than the drive, check other things such as system settings or other software being used, etc.
If you cannot resolve the problem after verifying these items, contact your dealer or our customer service department.

Problem	Possible Cause	Possible Solution
Cannot play a DVD or CD in the drive or certain types of discs cannot be read in the drive.	1. The disc is not inserted correctly. 2. The disc is dirty. 3. The pick-up lens is dirty. 4. The disc is scratched or warped. 5. The disc uses a region code that cannot be played on the drive.	1. Reinsert the disc correctly. 2. Clean the disc surface. 3. Clean the pick-up lens. 4. Change the disc. 5. Refer to your system manual for help.
Disc tray cannot be opened	1. AC Plug is not connected to AC outlet. 2. Power Switch is not turned on.	1. Connect the AC plug tightly. 2. Turn the Power Switch on and try again.
Drive is not detected by the system.	1. The USB 2.0 converter cable is not properly connected. 2. Power Switch is not turned on.	1.Make sure USB 2.0 converter cable is connected properly and re-install the device driver. 2. Turn the Power Switch on and try again.
Drive will not play media or certain types of CD or DVD media	1. The disc doesn't match your system. Is the media disc the correct format for the type of system that you are using. 2. Virus possibility.	1. Check the disc format. (on a PC an ISO 9660 IBM compatible PC format as opposed to Apple/Mac HFS disc or UNIX disc formats will not function) 2. Has the Windows DVD-ROM software driver program been corrupted by a virus? Run a Virus Scan program and repair if possible.

Specifications

Supported Discs	DVD(Single/Dual), DVD-RW, DVD-R, DVD+RW, DVD+R Double layer, DVD- RAM, CD-Digital Audio & CD-Extra, CD-Plus, CD-ROM, CD-ROM XA-Ready, CD-I FMV, CD-TEXT, CD-Bridge, CD-R, CD-RW, Photo-CD (Single & Multi-Session), Video CD, DVD-VIDEO	
Dimensions (WxHxD)	163.2 x 54 x 244.7mm	
Weight	About 1.54Kg	
Interface	USB 2.0, IEEE1394	
Read/Write Speed	Write CD-R: 4X, 8X, 16X, 24X, 32X, 40X CD-RW: 4X, 8X, 10X, 16X, 24X DVD-R: 1X, 2X, 4X, 8X DVD-RW : 1X, 2X, 4X DVD+R: 2.4X, 4X, 8X, 12X DVD+RW: 2.4X, 4X DVD-RAM: 2X, 3X, 5X(Ver.2.2) DVD+R Double layer: 2.4X	Read CD-ROM/R: 40X max CD-RW: 40X max DVD-ROM (Single/Dual):16X/8X max DVD+/-RW: 8X max DVD+/-R: 10X max DVD-VIDEO: 8X max DVD-RAM: 2X, 3X, 5X(Ver.2.2) DVD+R Double layer: 8X
Data transfer rate		
Sustained	CD-ROM : 6000 Kbytes/s (40X max) DVD-ROM : 22160 Kbytes/s (16X max)	
Average Access Time (Random)	CD-ROM: 135msec (Typical) DVD-ROM : 155msec (Typical) DVD-RAM : 185msec (Typical)	
Buffer capacity	2 Mbytes	
MTBF	100000 Power On Hours (Duty Cycle 10%)	
Read/Write	CD-R, CD-RW, DVD-RW, DVD+RW, DVD-RAM	
Writing Methods	Disc-at-once, Track-at once, Multi-session, Packet Write	
Power Requirement	AC Adapter	
Input	100-240V AC, 50/60 Hz	
Output	5V/12V 1.5A	
Operating Environment		
Temperature	5 to 35 degC	
Humidity	20 to 80 %	
Storage Environment		
Temperature	-20 to 55 degC	
Humidity	15% to 85% RH	

- The maximum data transfer rate varies according to the performance capabilities of the PC.
- For the sake of periodic improvements, specifications and appearance are subject to change without notice.
- We have taken all possible measures to assure the quality of our products, but we cannot be responsible for the consequences if defect occurs.

Copyright © 2004 LG

LG Electronics U.S.A. Inc.
1000 Sylvan Ave.
Englewood Cliffs NJ 07632
U. S. A.
or http://www.lgusa.com

LG Electronics Canada Inc.
550 MATHESON Blvd. East Mississauga.
Ontario L4Z4G3 Canada

LG Electronics Deutschland GMBH
Jakob-Kaiser-Straße 12,
D-47877 Willich, Germany

LG Electronics U. K. Ltd.
LG House, 250 Bath Road,
Slough Berkshire SL1 4DX
United Kingdom

Goldstar France E.U.R.L
Paris Nord II 22, Avenue des
Nations-B.P.50372 VILLEPINTE
95945 ROISSY CDG CEDEX France

LG Electronics Italia S.P.A.
Centro Direzione "IL Quadrate" Via
Modigliani, 20090 Segrate (MI) Italy

LG Electronics España
Complejo Europa Empressaries (Edif.Bruselas)
Ctra. N-VI 28230 Las Rozas Madrid Spain

LG Electronics Australia Pty Ltd.
23, pike st Rydalmere NSW 2116
or http://www.lge.com.au

LG Electronics Portugal S.A.
Quinta da Fonte – Edifício D. Amélia
Rua Vítor Câmara, nº2, Piso 2
2700-229 Paço d´ Arcos, Portugal
ou www.lge.pt

Caution!

The disc rotates at high speed in the drive unit.
Use of worn, damaged, or non-standard discs can only adversely affect the drive and cause the disc to shatter or crush while in use.
Disc crush can only occur when you use a damaged disc in the drive. It is an extremely rare occurrence, but there are steps which can be taken to prevent it.

Always check your discs before inserting them into the drive.

1. **Do not to use worn, cracked, damaged, warped or poor quality discs, as this may cause damage to your drive.**
2. **Check the clear plastic on the center of the disc, cracks here are the main cause of disc crush.**
3. **Do not play CDs which are a non-standard (I.e. non-circular)shape, such as heart shaped discs, or discs in the shape of a business card.**

How can you keep your discs from becoming damaged?

1. **When not in use, remove discs from the drive.**
2. **Keep discs in the original packaging and out of direct sunlight and away from heat sources.**

Excessive vibration or a sudden jolt to the drive during operation may cause a malfunction.
Avoid exposing the drive to sudden changes in temperature as it may cause condensation to form inside the drive.

LG

Website ; http://www.lge.com
http://www.LGEservice.com

P/NO. 3828HM1056A Ver. A

©2004 Made by LG